## **CPAD Instrumentation Frontier Workshop 2021**



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## The CGEM-IT of the BESIII experiment: preliminary results of the cosmic data taking

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Since 2008, the BESIII (Beijing Spectrometer III) experiment is running at the leptonic collider BEPCII (Beijing Electron Positron Collider II), hosted at the Institute of High Energy Physics of Beijing, PRC. A 10-year extension of the BESIII operations has been approved recently, and both the detector and the collider are now upgrading to cope with the extended physics program. One of the main upgrades is the replacement of the present inner tracker with a new detector based on Cylindrical GEM (Gas Electron Multipliers). The CGEM-IT (Cylindrical GEM Inner Tracker) detector is composed of three layers of cylindrical triple-GEMs and it will be read-out by the ASIC TIGER, which will allow to have simultaneous time and charge information for the hits. At present time, in Beijing, two of the final layers are collecting cosmic data to finalize the commissioning while waiting for the final later to be shipped from Italy. In this presentation, an overview of the CGEM-IT project will be presented, with a focus on the preliminary results from cosmic data taking.

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